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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/766,725	01/27/2004	Kwang-Hae Choi	678-1134 (P10758)	3443

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DILWORTH & BARRESE, LLP
333 EARLE OVINGTON BLVD.
UNIONDALE, NY 11553

EXAMINER	
HUYNH, CHUCK	

ART UNIT	PAPER NUMBER
2617	

DATE MAILED: 11/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/766,725	CHOI ET AL.	
	Examiner	Art Unit	
	Chuck Huynh	2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *10 July 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. The Art Unit location of your application in the USPTO has changed. To aid in correlating any papers for this application, all further correspondence regarding this application should be directed to Art Unit 2617.

Response to Arguments

1. Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

Regarding the amended limitation, in claims 1 and 9, reciting, "...variably setting a search period value for determining at which to begin a search..." Applicant argued that the search period value disclosed by Soliman contrasts with the search period disclosed by amended claims 1 and 9. The claims recite that the search period value is used for determine a time at which to begin a search, rather than the duration of a search.

In response to Applicant's arguments, Examiner would like to explain that the duration of a search window consists of a starting time and an ending time, which is obvious to one ordinarily skilled in the art; therefore, the amendment made to the claim still has not overcome the current rejection. Furthermore, Soliman discloses at what time would a search be performed (Page 1, line 28 – Page 2, line 15); essentially describing when a search should start. Therefore, claims 1-16 are still not yet in condition for allowance, until further amendments are made.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 1-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Findikli in view of Soliman.

Regarding claim 1, Findikli a communication system for selecting a PLMN (Public Land Mobile Network), comprising:

an MS (Mobile Station) for transmitting an MIN (Mobile Identification Number) message, an ESN (Electronic Serial Number) message and a location update request signal containing location information for registering the location of the MS (Col 1, lines 43-59; Col 2, lines 3-20, 47-51) and for searching for the PLMN on the basis of an HPLMN search period value corresponding to the location update request signal (Col 1, lines 60 – Col 2, lines 2);

an MSC (Mobile Switching Center) for performing an authentication procedure for the MS transmitting the location update request signal and extracting the location information from the location update request signal (Col 1, lines 60 – Col 2, lines 2);

a VLR (Visitor Location Register) for storing subscriber data of the MS provided from outside the MS and registering a location of the MS (Col 1, lines 36, 60 – Col 2, lines 2); and

an HLR (Home Location Register) for updating the location information of the MS extracted from the MSC, variably setting a search period value for determining a time at which to begin a search at a time of searching for an HPLMN or higher-priority PLMN on the basis of the location information of the MS and transmitting the set search period value to the MS (Col 1, lines 51 – Col 2, lines 20, 48-56, 34; Col 4, lines 7-55; Page 1, line 28 – Page 2, line 15).

Even though Findikli clearly discloses all the particulars of the claim and suggests that the search period is set on the basis of the location information of the MS, Findikli does not explicitly disclose it in the text.

However, Soliman does disclose that the search period (search window size) is set on the basis of the location information of the MS (Page 10, line 10 – Page 11, line 2; Page 8, line 5 – Page 9, line 7).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Soliman's disclosure with Findikli to provide a more efficient way to search for communication service.

Regarding claims 2, Findikli discloses the communication system as set forth in claim 1, wherein the HLR sets the search period value to a value larger than a set threshold value if the HLR determines that the HPLMN and PLMN do not exist in a

predetermined range, on the basis of the location information (Col 6, lines 12-54) (as the system performs a full scan or a power-up scan (Col 6, line26, 45) the time period is increase to be longer than the partial (shorten time period Col 6, line 43) scan); and

wherein the HLR sets the search period value to a value smaller than a set threshold value if the HLR determines that at least one of the HPLMN and PLMN exists in a predetermined range, on the basis of the location information (Col 6, lines 12-54) (partial (shorten time period Col 6, line 43) scan).

Regarding claims 3, Findikli discloses the communication system as set forth in claim 1, wherein the HLR sets the search period value "0" if the HLR determines that the HPLMN and PLMN do not exist in a predetermined range, on the basis of the location information (Col 7, lines 28-44).

Regarding claims 4, Findikli discloses the communication system as set forth in claim 2, wherein the HLR newly sets the search period value when newly receiving the location information (Col 1, line 60 – Col 2, line 20).

Regarding claims 5, Findikli discloses all the particulars of the claim, but is not explicitly clear on the communication system as set forth in claim 4, wherein the location information is geographic information on a map.

However, Soliman does disclose the communication system as set forth in claim 4, wherein the location information is geographic information on a map (Page 9, line 9 – Page 10, line18).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Soliman's disclosure to provide more specific location information.

Regarding claims 6 Soliman's disclosure of GPS (Page 9-10), it is well known in the art that the communication system as set forth in claim 5, wherein the location information comprises latitude information and longitude information associated with the location of the MS.

Regarding claim 7, Findikli discloses the communication system as set forth in claim 1, wherein the subscriber data is information associated with corresponding service subscription using the MS (Col 2, lines 3-20).

Regarding claim 8, Findikli the technology of the communication system as set forth in claim 1, wherein the HLR transmits the period value to the MS using an OTA (Over The Air which is broadly interpreted as wireless) method (Col 4, lines 28-29: "control signals to MS" which is wireless).

3. Claims 9-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Findikli in view of Salmivalli in further view of Soliman.

Regarding claim 9, Findikli discloses a method for selecting a PLMN (Public Land Mobile Network) in an MS (Mobile Station) using a communication system, the communication system including the MS, an MSC (Mobile Switching Center), a VLR (Visitor Location Register) and an HLR (Home Location Register), comprising the steps of:

a) transmitting subscriber identification information and authentication information for authenticating the MS according to a location update request signal containing location information of the MS received from the MS (Col 1, lines 51-66);

b) if the location information is received from the MSC through an authentication procedure by the MSC (Col 1, line 51 – Col 2, line 20; Col 2, lines 35-42), updating the location information (Col 1, lines 62-66).

Even though Findikli discloses all the particulars of the claim, Findikli does not fully disclose allowing the MS to request a previous VLR of the MS to release previously registered location information; and

c) if the location information previously registered by the previous VLR is released, inserting subscriber data for the MS into the VLR; and

d) variably setting a search period value for determining a time at which to begin a search at a time of searching for an HPLMN or higher-priority PLMN on the basis of

the location information of the MS and transmitting the set search period value to the MS.

However, Salmivalli does disclose authenticating and allowing the MS to request a previous VLR of the MS to release (delete) previously registered location information (Col 2, lines 3-24).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Salmivalli's disclose to provide a more secure network and accurate positioning of subscriber device.

Salmivalli also discloses feature c) of claim 1 where if the location information previously registered by the previous VLR is released, inserting subscriber data for the MS into the (new) VLR (Col 2, lines 17-24).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Salmivalli's disclosure to provide an accurate update of subscriber device's location for communication within the network.

Even though Findikli in view of Salmivalli clearly discloses all the particulars of the claim and Findikli even suggests variably setting a search period value at a time of searching for an HPLMN (Col 4, lines 23-40; Col 2, lines 8-15), but may not specifically rely on specific location information.

However, Soliman, does disclose variably setting a search period value for determining a time at which to begin a search on the basis of the location information of the MS and transmitting the set search period value to the MS. (Page 10, line 10 – Page

11, line 2; Page 8, line 5 – Page 9, line 7; Page 18, line 12 – Page 19, line 5; Page 1, line 28 – Page 2, line 15).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Soliman's disclosure with Findikli to provide a more efficient way to search for communication service.

Regarding claims 10, Findikli discloses the communication system as set forth in claim 9, wherein the HLR sets the search period value to a value larger than a set threshold value if the HLR determines that the HPLMN and PLMN do not exist in a predetermined range, on the basis of the location information (Col 6, lines 12-54) (as the system performs a full scan or a power-up scan (Col 6, line26, 45) the time period is increase to be longer than the partial (shorten time period Col 6, line 43) scan); and

wherein the HLR sets the search period value to a value smaller than a set threshold value if the HLR determines that at least one of the HPLMN and PLMN exists in a predetermined range, on the basis of the location information (Col 6, lines 12-54) (partial (shorten time period Col 6, line 43) scan).

Regarding claims 11, Findikli discloses the communication system as set forth in claim 9, wherein the HLR sets the search period value "0" if the HLR determines that the HPLMN and PLMN do not exist in a predetermined range, on the basis of the location information (Col 7, lines 28-44).

Regarding claims 12, Findikli discloses the communication system as set forth in claim 10, wherein the HLR newly sets the search period value when newly receiving the location information (Col 1, line 60 – Col 2, line 20).

Regarding claims 13, Findikli discloses all the particulars of the claim, but is not explicitly clear on the communication system as set forth in claim 12, wherein the location information is geographic information on a map.

However, Soliman does disclose the communication system as set forth in claim 4, wherein the location information is geographic information on a map (Page 9, line 9 – Page 10, line18).

It would have been obvious to one ordinarily skilled in the art at the time of invention to incorporate Soliman's disclosure to provide more specific location information.

Regarding claims 14 Soliman's disclosure of GPS (Page 9-10), it is well known in the art that the communication system as set forth in claim 13, wherein the location information comprises latitude information and longitude information associated with the location of the MS.

Regarding claim 15, Findikli discloses the communication system as set forth in claim 9 respectively, wherein the subscriber data is information associated with corresponding service subscription using the MS (Col 2, lines 3-20).

Regarding claim 16, Findikli discloses the method as set forth in claim 9, wherein step d) comprises the step of:

transmitting the period value to the MS using an OTA (Over The Air which is broadly interpreted as wireless) method (Col 4, lines 28-29: "control signals to MS" which is wireless).

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuck Huynh whose telephone number is 571-272-7866. The examiner can normally be reached on M-F 8am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Duc Nguyen can be reached on 571-272-7503. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Chuck Huynh

DUC M. NGUYEN
SUPERVISORY PRIMARY EXAMINER
TECHNOLOGY CENTER 2600